Department of Energy
Washington, DC 20585

May 28, 2002

MEMORANDUM FOR DISTRIBUTION

FROM: JESSIE HILL ROBERSON
ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

SUBJECT: Supplemental Environmental Management (EM) Guidance for Implementing 10 CFR 830, Subpart B, Safety Basis Requirements

As part of the 10 CFR 830, Subpart B implementation study currently underway within DOE-EM, three workshops were conducted at DOE Headquarters during the week of April 15, 2002. The focus of these workshops was to facilitate cost-effective and safety-enhancing implementation of the nuclear safety rule. Participants from both DOE and EM contractors were present from the following sites: Brookhaven National Laboratory, Hanford (both Richland Operations Office and Office of River Protection), Idaho National Engineering and Environmental Laboratory, Lawrence Livermore National Laboratory, Mound, Oak Ridge, Rocky Flats, Savannah River, and the Waste Isolation Pilot Plant. DOE participants from various headquarters offices in Environmental Management (EM-5), Environment, Safety and Health (EH-10, EH-23 and EH-53) and General Counsel (GC-52) were also in attendance. I very much appreciate each of your offices' help in making these workshops a success.

Based on the inputs of the workshop participants, supplemental 10 CFR 830 Subpart B guidance was prepared in the areas of exemptions, nuclear facility hazard categorization, and implementation of documented safety analysis (DSA) and technical safety requirements (TSR). This guidance is intended to eliminate uncertainty and clarify expectations which, in turn, will enhance safety and reduce costs. These three sets of guidance, are attached for your offices' and contractors' use.

I recognize that this guidance would be better located in DOE guides and standards. While this is a preferable endpoint, my goal in issuing this guidance now is to allow for more timely, cost-effective and consistent application across the EM complex. Therefore, you are requested to expeditiously implement this guidance and notify me of the completion of your implementation actions within 30 days of the date of this memorandum.

For questions or clarification, please contact Sandra Johnson, Director, Office of Safety, Health and Security (EM-5) at (202) 586-0651, or have your staff contact Dr. Maria Gavrilas-Guinn, EM-5 at (202) 586-2232.

Attachments:

1.0 EM Supplemental Guidance on 10 CFR 830 Exemptions (with attached diagram)

2.0 EM Supplemental Guidance on Nuclear Facility Hazard Categorization

3.0 EM Supplemental Guidance on DSA/TSR Implementation

Distribution
Warren E. Bergholz, Jr. Acting Manager, Idaho Operations Office (ID)
Jack Craig, Acting Manager, Ohio Field Office (OH)
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T.Evans, EM-5
T. Krietz, EM-5
C. Scott, EM-5
T. Tracy, EM-5
J. Arango, EM-5
B. Cook, EH-1
K. Christopher, EH-10
R. Black, EH-53

cc:
L. Ottis, General Council, Office of General Council
Jack Tillman, Director, Office of Environmental Management,
Albuquerque Operations Office (AL)
Anibal Taboas, Assistant Manager for Environmental Management,
Chicago Operations Office (CH)
Carl Gertz, Assistant Manager for Environmental Management,
Nevada Operations Office (NV)
Roger Liddle, Acting Assistant Manager for Environmental Management,
Oakland Operations Office (OAK)
Gerald Boyd, Assistant Manager for Environmental Management,
Oak Ridge Operations Office (OR)
Celinda Crawford, Acting Associate Director for Environmental Management and Defense Programs, National Energy Technology Laboratory (NETL)

1.0 EM Supplemental Guidance on 10 CFR 830 Exemptions

As previously reiterated in EM memoranda of January 10, 2001, March 27, 2001, and April 8, 2002, exemptions to 10 CFR 830 will be processed consistent with 10 CFR 820 and DOE-STD-1083-95, *Requesting and Granting Exemptions to Nuclear Safety Rules*. The following additional guidance supplements these existing requirements.

1.1 10 CFR 830.207(a) requires the contractors to submit a rule-compliant safety basis for DOE approval by April 10, 2003. Consistent with the precedent established in DOE Office of Enforcement Guidance Supplement 95-01, EM contractors should submit requests for exemption from 10 CFR 830.207(a) to DOE no later than February 10, 2003.

1.2 Implementation, as well as preparation and approval of safety basis documents can be significant cost and schedule drivers. Exemption requests must address two types of implementation actions in their justification:

1.2.1 As discussed in DOE-STD-1083-95, Section 3.2(c), the scope, cost and schedule of actions necessary to implement a rule-compliant documented safety analysis (DSA) and associated technical safety requirements (TSRs) shall be addressed. Attachment 3 to this memorandum provides specific considerations for DSA/TSR implementation.

1.2.2 As discussed in DOE-STD-1083-95, Section 3.2(g), the scope, cost and schedule of actions necessary to implement the requested exemption and any related "mitigating actions" shall be specifically addressed.

1.3 The attached flow diagram illustrates the EM process I have established for the approval of exemption requests.

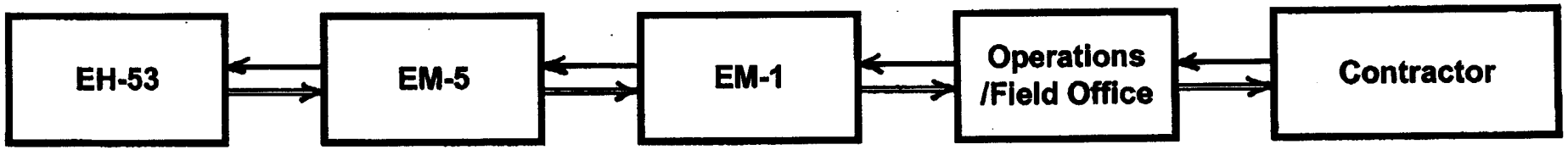
1.3.1 The EM-5 site liaisons (listed on the diagram) are the primary points of contact for early coordination and processing of 10 CFR 830 exemption requests.

1.3.2 In accordance with DOE-STD-1083-95, a period of 180 days is allowed for DOE review and disposition of exemption requests. The goal of EM-Headquarters is to complete the process in less than 60 days, contingent upon the contractor satisfying the content requirements specified in Section 3.2 of DOE-STD-1083-95.

1.4 The Integrated Safety Management System Guide 450.4-1B, Volume 1, Chapter 2, specifies format and content requirements for authorization agreements. Consistent with this existing guidance, any approved exemptions to Subpart A or Subpart B to 10 CFR 830 shall be incorporated into the associated authorization agreements. For nuclear facilities without authorization agreements, documentation of approved exemptions shall be contractually captured and maintained. This will ensure each exemption and the terms and conditions embodied within have a contractual home and are not "lost" with the passage of time.

1.5 Following EM-1 approval of an exemption request, the contractor shall be required by the local DOE office to satisfy any conditions established in the approved exemption requests. This is expected to include commitment tracking of future actions required by the exemption.

10 CFR 830 EM Exemption Process



- Operations/Field Office initiates early discussions with EM Site Liaison on exemption content, documentation, and timing.
- Operations/Field Office sends the contractor's exemption request, DOE evaluation, and DOE recommendation to EM-1, with copies to EM-5 and EH-53.
- EM-5 (Site Liaison and Maria Gavrilas-Guinn) verifies that the exemption request package is complete (contains elements required by 10 CFR 820 and DOE-STD-1083-95).
- EM-5 (Site Liaison and Maria Gavrilas-Guinn) prepares the exemption approval package (memo, technical review and decision); as appropriate, consults with EM Site Office for programmatic impact.
- EM-5 (Maria Gavrilas-Guinn) obtains EH-53 comments and interfaces with GC as needed.

EM-3

DAS

EM Site Office

EM-5 Site Liaisons

Carlsbad	Thomas T. Evans	301-903-7609
Idaho	John J. Serocki	301-903-7999
Nevada	Thomas T. Evans	301-903-7609
Oak Ridge	Teresa Gepner	301-903-2241
Oakland	Thomas T. Evans	301-903-7609
Ohio	Thomas T. Evans	301-903-7609
Rocky Flats	Terrance M. Tracy	301-903-2173
Richland	Terry Krietz	301-903-6456
River Protection	Terry Krietz	301-903-6456
Savannah River	Craig C. Scott	301-903-2192

2.0 EM Supplemental Guidance on Nuclear Facility Hazard Categorization

10 CFR 830.202(b)(3) requires nuclear facilities to be categorized in accordance with DOE-STD-1027-92, Change Notice 1. DOE-STD-1027-92 describes a simple threshold methodology for quick, preliminary hazard categorization but acknowledges additional analysis may justify a different final hazard category. Based on insights and inquiries obtained from the EM field, the following clarifications and expectations are provided for use at EM facilities.

2.1 DOE-STD-1027-92, Section 3.1.2, permits for final hazard categorization to a lower or higher hazard category. For cost effectiveness, final hazard categorization may be developed and approved by DOE separate from, and prior to, completion of the associated documented safety analysis and related technical safety requirements.

2.2 For nuclear facilities with inventories above the hazard category 3 threshold quantity in DOE-STD-1027-92, Table A.1, but for which the proposed final hazard categorization is less than hazard category 3:

2.2.1 DOE approval of the final hazard categorization is required in accordance with DOE M 411.1-1B, *Safety Management Functions, Responsibilities, and Authorities Manual.*

2.2.2 The contractor must maintain the assumptions and controls (e.g., inventory control) as defined in the approved final hazard categorization

2.3 10 CFR 830.202(c)(1) requires that the safety basis be kept current to reflect changes in the facility, work, and hazards. EM contractors shall have a process to ensure that final hazard categorizations for below hazard category 3 nuclear facilities are revisited for any changes that may affect the approved final hazard categorization controls or assumptions (e.g., introduction of a new energy source). Some sites utilize a process very similar to their unreviewed safety question process for this purpose.

2.4 Section 9.3.2 of DOE M 411.1-1B assigns the responsibility to the Cognizant Secretarial Officer (CSO) to approve the final hazard categorization. Pending clarification by the Office of Environment, Safety and Health or General Counsel, it is EM's position that final facility hazard categorization, as approved by DOE, determines the applicability of 10 CFR 830, Subpart B. For facilities whose hazard categorization is not final or DOE approval of the final hazard categorization downgrade is pending, the contractor must comply with 10 CFR 830, Subpart B, in accordance with the preliminary hazard categorization or the current approved final hazard categorization.

2.5 Nuclear facilities which are recategorized as below hazard category 3 are expected to realize cost savings since hazard category 2 and 3 nuclear facilities are the subject of higher expectations and certain DOE rules and orders (e.g., 10 CFR 830 Subpart B and DOE O 425.1B, *Startup and Restart of Nuclear Facilities*). DOE-STD-1027-92, Attachment 1, provides the hazard category 3 dose threshold criterion for final hazard categorization but does not provide the method to calculate this dose. To support EM facility recategorization, EM will be requesting assistance from EH and/or the EM contractor community to develop a standard method for demonstrating facility recategorization below this dose threshold criterion.

3.0 EM Supplemental Guidance on DSA/TSR Implementation

Implementation of the documented safety analysis (DSA) and technical safety requirements (TSR) is not explicitly addressed in 10 CFR 830. EM understands that there may be a need for such an implementation period following DSA/TSR approval. For the purpose of this guidance, DSA/TSR implementation is defined as those activities that occur between the issuance of the safety evaluation report (SER) and the effective date of the new DSA/TSR.

3.1 In accordance with 10 CFR 830.203, the unreviewed safety question process applies to the existing safety basis (e.g., basis for interim operations, safety analysis reports) until that basis is replaced by the new DSA/TSR on its effective date.

3.2 During development, review, approval, and prior to the effective date of the new DSA/TSR, configuration management shall be maintained on the new DSA/TSR. The purpose of this is to evaluate changes to the facility, the analysis, or both, to identify those that must be addressed in the new DSA/TSR prior to the effective date.

3.3 EM field offices shall ensure that contractors formally address DSA/TSR implementation cost, scope, and schedule in all future DSA/TSR submittals.

3.4 EM approval authorities shall specifically address the DSA/TSR effective date and any conditions of approval specific to implementation in the SER. Unless the effective date is specifically addressed in the SER, the DSA and TSR are effective immediately upon issuance of the SER per 10 CFR 830.207(b). (See also 66 FR 7, January 10, 2001, page 1816, Response to Comment LL.) "Conditions of approval" are briefly discussed in Section 3 of DOE-STD-1104-96, *Review and Approval of Nonreactor Nuclear Facility Safety Analysis Reports.*

3.5 Configuration management costs for new DSAs/TSRs are directly related to the length of the implementation period. Therefore, DSA/TSR implementation should be of high priority and accomplished within 90 days of SER issuance. The duration of the DOE review and approval process, likewise, drives these costs and should also be of high priority and accomplished within 90 days.

3.6 On April 8, 2002, I requested that you provide additional schedule information on DSA/TSR implementation. Examples of activities that contribute to and should be accounted for in the implementation duration include hardware modifications and testing, procedural development, personnel training, and verifying completion of implementation preparations.